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18. The medical device of claim 5 wherein the analyte is a metabolite of the therapeutic agent.

19. The medical device of claim 1 comprising at least one disposable assay device comprising the at least one microneedle and the microchannel; and a non-disposable assay reader device comprising the microarray scanning device and the interface device.

20. The medical device of claim 19 wherein the assay device and assay reader device are in optical communication with one another.

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21. The medical device of claim 19 wherein there are a plurality of disposable assay devices fitted in a single assay reader device.

22. The medical device of claim 1 wherein the microarray scanning device detects evanescent wave.

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